

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1. (currently amended) A process for determining a minimum amount of a ultraviolet absorptive compound to be chemically bonded to a binder and/or a curing agent for the production of ~~producing a weather resistant coating by preparing a weather resistant coating material~~ film comprising a the binder and a the curing agent as main constituents and coating an article to be coated with the coating material, followed by drying, which process comprises

~~chemically bonding an,~~ which can keep a gloss retention of 80% or more for 2500 hours or more in an accelerated weathering test by a carbon sunshine weather-o-meter (black panel temperature 63 °C, spray cycle : 12 min./60 min.), comprising:

choosing a desired exposure time τ (hours) of 2500 hours or more for which the coating film can keep a gloss retention of 80% or more in the accelerated weathering test by a carbon sunshine weather-o-meter (black panel temperature : 63 °C, spray cycle : 12 min./60 min.), a ultraviolet absorptive compound having the maximum value of its light absorption spectrum in a wavelength region shorter than 380 nm and having a molecular extinction coefficient at the absorption maximum wavelength of 5,000 to 50,000 ~~to either or both of the binder and the curing agent constituting the coating material,~~

~~preparing a coating material with the above mentioned bonding and the constitution of the coating material being designed such that when the coating material is coated on an article and dried, the concentration C (mol/L) of the~~

functional group of the ultraviolet absorptive compound in the dry coating film
satisfies the expression

$$\epsilon \cdot dC \geq 129 \cdot \log \tau - 367$$

wherein ϵ is the molecular extinction coefficient of the residual group of the above-mentioned compound in the dry film, d is the thickness (cm) of the dry film when in use, and τ is the time (hour) of exposure, and

coating the coating material on the article, followed by drying, so that the thickness of the dry coated film may become the above-mentioned d and a dry thickness d of the coating film;

plugging the values of the desired exposure time τ , a molecular extinction coefficient ϵ of the ultraviolet absorptive compound and the dry thickness d into the expression:

$$C = \frac{129 \times \log \tau - 367}{\epsilon \times d}$$

to obtain concentration C (mol/L) of the functional group of the ultraviolet absorptive compound in the dry coating film; and

calculating an amount of the ultraviolet absorptive compound which gives the concentration C (mol/L) of the functional group of the ultraviolet absorptive compound in the dry coating film.

Claim 2. (presently amended) The process according to claim 1 wherein ~~the binder to which the said compound has been bonded is a resin obtained by copolymerizing an ultraviolet absorptive compound~~ said ultraviolet absorptive compound has a polymerizable vinyl group and is to be copolymerized with another monomer having a polymerizable vinyl group with another monomer having a polymerizable vinyl group to form the binder to which said ultraviolet absorptive compound is chemically bonded.

Claim 3. (presently amended) The process according to claim 1 wherein ~~the curing agent to which the said compound has been bonded is a curing agent which comprises as an essential constituent an isocyanate compound containing residual isocyanate groups obtained by reacting an~~ said ultraviolet absorptive compound having has an active hydrogen and is to be reacted with a part of the isocyanate groups of an isocyanate prepolymer and/or monomer each having at least two free isocyanate groups ~~and further comprises, according to necessity, an isocyanate prepolymer~~ to form the curing agent to which said ultraviolet absorptive compound is bonded.

Claim 4. (presently amended) The process according to claim 1 wherein ~~the~~ said ultraviolet absorptive compound is at least one compound selected from the group consisting of benzotriazole type compounds and benzophenone type compounds.

Claim 5. (withdrawn) A weather resistant coating material which comprises a binder and a curing agent as main constituents and, when coated on an

article to be coated and dried, can give a weather resistant coating film which can keep a gloss retention of 80% or more for 1000 hours or more in an accelerated weathering test by a carbon sunshine weather-o-meter, which is obtained by chemically bonding an ultraviolet absorptive compound having the maximum value of its light absorption spectrum in a wavelength region shorter than 380 nm and having a molecular extinction coefficient at the absorption maximum wavelength of 5,000 to 50,000 to either or both of the binder and the curing agent constituting the coating material with the above-mentioned bonding and constitution being designed such that when the coating material is coated on an article and dried, the concentration C (mol/L) of the residual group of the ultraviolet absorptive compound in the dry coating film may satisfy the expression

$$\epsilon dC \geq 129 \cdot \log \tau - 367$$

wherein ϵ is the molecular extinction coefficient of the residual group of the above-mentioned compound in the dry film, d is the thickness (cm) of the dry film when in use, and τ is the time (hour) of exposure in the accelerated weathering test that shows a gloss retention of 80% or more which is determined according to the requirements of intended uses.